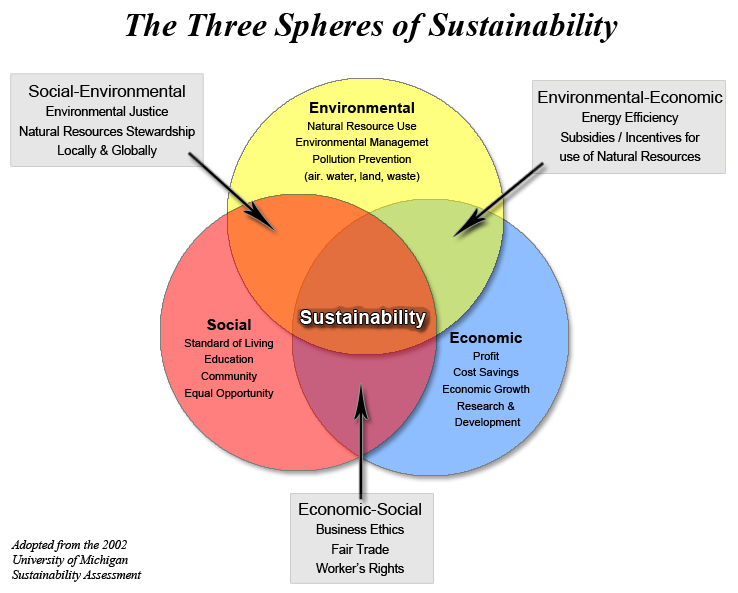
**Name: Toindepi Graciano Zihori Date:28/08/12**

**Task 4**

**Devise strategies for incorporating sustainability into an ICT project**

**2.3. Establish, regularly review and improve key performance indicators (KPI) on sustainability performance**

**2.4. Incorporate innovative planning and design rules for ICT projects which foster sustainability and environmental best practice** 

**Read:** **Sustainable Development Key Performance Indicators**

<http://www.sd-m.de/files/SD-KPI_Standard_2010-2014_V12e.pdf>

1. **Explain the most important sustainability challenges at top management level,**
2. **Explain a minimum reporting standard of sustainability for annual reports**
3. **Explain why Sustainable Development needs integration into mainstream investment.**

Innovative planning and design

<http://www.greenit.net/solutions_enterprise.html>

According to a May 2007 report from Cisco, packet voice networking costs only 20 to 30 percent of an equivalent circuit-based voice network. Unified messaging services allows the consolidation of fax machines, video conference rooms and voicemail systems into a single platform, with infrastructure cost savings of as much as 40%.

Lyra Research states that usage of converged network copier-printers products allows equipment consolidation, reducing the number of output devices in a typical corporation by up to 60%. In addition, IT departments are freed from supporting diverse types of printers. Hewlett-Packard‘s Neoware thin client computing solutions announced that its devices can help companies reduce computing-related energy costs by up to 90 percent.



Create a design for a simple LAN of 20 seats that embodies some of these IT innovations in providing computing and printing

**Hardware**

|  |  |  |  |
| --- | --- | --- | --- |
| **Hardware** | **Cost** | **URL** | **Average power**  **E.g. browser open** |
| Server | $500 | Generic | 45watts idle |
| Switch 24 Port | $156.00 | <http://www.ebay.com.au/itm/TP-Link-TL-SG1024-24-Port-10-100-1000Mbps-Gigabit-Rackmount-Switch-24-Port-/221074839891?pt=LH_DefaultDomain_15&hash=item3379165953> | Idle 7 -8 watts (2 thin clients attached) |
| Thin Client Wyse WT3125SE x 20 | $75.00 \* 20 = $1500.00 | <http://www.ebay.com.au/itm/WYSE-WT3125SE-THIN-CLIENT-TERMINAL-/170465092590?pt=LH_DefaultDomain_15&hash=item27b082e3ee> | 9 watts (each) |
| Modem/router | $30.00 | <http://www.ebay.com.au/itm/NETGEAR-DGN1000-N150-WIRELESS-ADSL-MODEM-ROUTER-/320970369155?pt=LH_DefaultDomain_15&hash=item4abb532883> | 6 watts + 1watt for dongle |
| Printer  Lexmark Z12 | $34.99 | <http://www.ebay.com.au/itm/Lexmark-Z12-4102-001-Inkjet-Printer-/200753421862?pt=COMP_Printers&hash=item2ebdd61e26> | Idle 8 -16 watts |
| Monitor HP Compaq FP5315 x 2 | $168.25 | <http://www.ebay.com.au/itm/HP-Compaq-FP-5315-15-LCD-Monitor-Black-Silver-/221115207200?pt=Computer_Monitors&hash=item337b7e4e20> | 18 watts (each) |

**Key Performance Indicators**

|  |  |  |  |
| --- | --- | --- | --- |
| **Hardware** | **SD-KPI 1: Energy / greenhouse gas efficiency of production / products in use**  **(tons CO2)** | **SD-KPI 2: Proportion of products with “Design for Environment” / Eco-Label**  **(√)**  **or (x)** | **SD-KPI 3: Emissions of (hazardous) waste and toxic materials**  **Yes or No** |
| Server | .045x24x365x6.8956/10000=0.2718 |  | ROSH No |
| Switch 24 Port | .008x24x365x6.8956/10000=0.0489 | Power Consumption Automated based on length of power lead and cables connected reference From tp-link.com/lk/products | ROHS Yes |
| Thin Client x 20 | Total for each 0.009x8x262x6.8956/10000=0.0130  Total Per 20 = 0.25816 | Wise Y210 Model WT3125SE – No Logo claiming energy saving  Ultra Think Client Y210 – also no logo claiming or confirming energy saving | ROHS No |
| Modem/router | 0.007x24x365x6.8956/10000=0.042283 | Yes, Netgear claim save up to 40% on power usage from green logo | ROHS – no claims found from Netgear site |
| Printer | 0.016x24x365x6.8956/10000=0.096648 | Yes Energy Star symbol on sticker on back of device |  |
| Monitor | 0.018x8x262x6.89560/10000=0.026015 ( per monitor) | Yes Energy star sticker claim on back of device | ROHS – no claims found |

Reference: <http://www.epa.gov/cleanenergy/energy-resources/refs.html>

Design for a simple LAN of 20 seats meeting all 3 KPI (comparatively):